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EXAMINER	
CHEN, YAN LU	
ART UNIT	**PAPER NUMBER**
2109	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/509,084	WISEMAN, RICHARD M	
	Examiner	Art Unit	
	Yan Chen	2109	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/14/200, 9/28/20045*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 and 6-21 are rejected under 35 U.S.C. 102(b) as being anticipated by 5875354 (hereinafter Charlton et al.).

For claim 1, Charlton et al. teaches:

A method of synchronising the delivery to a user of first information which is to be presented to the user via first output means of a multi-modal interface arid of second information which is to be presented to the user via second output means of the multi-modal interface, the method comprising the steps of:

i) estimating the total time needed to deliver the first information to the first output means or to a store local to the first output means (figure 11, element 296, First predetermined value.);

ii) estimating the total time needed to deliver the second information to the second output means or to a store local to the second output means (figure 11, element 316, second predetermined value); and

iii) using the estimates obtained in step i) or step ii) to determine whether the presentation to the user of the first or second information to the user needs to be delayed to achieve a desired synchronism of presentation (figure 12, element 328); and

iv) applying any delay determined in step iii) to achieved the desired synchronism of presentation (column 9, lines 8-10 teach that the estimates are used to synchronize the data).

For claim 2, Charlton et al. teaches:

A method as claimed in claim 1, wherein the first and second output means are provided by a single output device (figure 5, element 88, display device).

For claim 3, Charlton et al. teaches:

A method as claimed in claim 1, wherein either or both of the first and second output means is/are visual display means (figure 5, element 88, display device).

For claim 4, Charlton et al. teaches:

A method as claimed in claim 1, wherein either or both of the first and second output means is/are audio reproduction means (figure 5, element 86, transducer (e.g. speaker)).

For claim 6, Charlton et al. teaches:

A method as claimed in claim 1, wherein the first means is visual display means and the second means is audio reproduction means (figure 5, element 86, transducer represents the audio mean and element 88 represents the display mean).

For claim 7, Charlton et al. teaches:

A method of synchronising the delivery to a user of first information which is to be presented to the user via a visual display of a multi-modal interface and of second information which is to be presented to the user over a visual or an audio interface of the multi-modal interface, the method comprising the steps of:

i) estimating the total time needed to deliver the first information to the visual display or to a store local to the visual display (figure 11, element 296, First predetermined value.);

ii) estimating the total time needed to deliver the second information to the visual or audio interface or to a store local to the visual or audio interface (figure 11, element 316, second predetermined value); and

iii) using the estimates obtained in step i) or step ii) to determine whether the presentation to the user of the first or second information to the user needs to be delayed to achieve a desired synchronism of presentation (figure 12, element 328); and

vi) applying any delay determined in step iii) to achieved the desired synchronism of presentation (column 9, lines 8-10 teach that the estimates are used to synchronize the data).

For claim 8, Charlton et al. teaches:

A method of synchronising the delivery to a user of first information which is to be presented to the user via a visual display of a multi-modal interface and of second information which is to be presented to the user over an audio interface of the multi-modal interface, the method comprising the steps of:

i) estimating the total time needed to deliver the first information to the visual display or to a store local to the visual display (figure 11, element 296, First predetermined value. Column 7, line 15, media includes video information.);

ii) estimating the total time needed to deliver the second information to the audio interface or to a store local to the audio interface (figure 11, element 316, second predetermined value. Column 7, line 15, media includes audio information.); and

iii) if the total time estimated in step i) is more than that estimated in step ii) delaying the presentation of the second information to the user sufficiently to enable the first information to be presented to the user before the second information is presented to the user (column 9, lines 8-10 teach that the estimates are used to synchronize the data).

For claim 9, Charlton et al. teaches:

A method as claimed in claim 7, wherein the delivery of the first information in step (i) is controlled by a server process, delivery of the first information involving delivery of that information to a client of the server process (column 9, lines 58-60 teach

a server that delivers information to the computer client).

For claim 10, Charlton et al. teaches:

A method as claimed in claim 7, wherein the delivery of the second information in step (ii) is controlled by a server process, delivery of the second information involving delivery of that information to a client of the server process (column 9, lines 58-60 teach a server that delivers information to the computer client).

For claim 11, Charlton et al. teaches:

A method as claimed in claim 7, wherein the latency of the communication channel over which the first information will be delivered to visual display or the store is measured, the measurement of latency being used in the estimation of total time carried out in step (i) (column 13, lines 66-67 teach the measurement of data sample - observes and records the sample.).

For claim 12, Charlton et al. teaches:

A method as claimed in claim 7, wherein the latency of the communications channel over which the second information will be delivered to the audio interface or to the store local to the audio interface is measured, the measurement of latency being used in the estimation of total time carried out in step (ii)) (column 13, lines 66-67 teach the measurement of data sample - observes and records the sample.).

For claim 13, Charlton et al. teaches:

A method as claimed in claim 11, wherein the measurement of latency involves the server process sending a communication to the associated client to elicit a response therefrom, the measurement of latency being derived from the duration of the interval between the sending of the communication and the receipt of the response (figure 9, element 190 teach that the data are being received. column 13, lines 66-67 teach the measurement of data sample - observes and records the sample.).

For claim 14, Charlton et al. teaches:

A method as claimed in claim 7, wherein knowledge of the quantity of first information which is to be presented and knowledge of the bandwidth of the communication channel over which the first information will be delivered to the visual display or the store local to the visual display are used to calculate the time required to transmit the first information to the visual display or the local store which is subsequently used in the estimation carried out in step i) (column 14, lines 3-67 and column 15, lines 1-26 teach the observed data sample are compared to predetermined value to determine the valued needed for synchronization).

For claim 15, Charlton et al. teaches:

A method as claimed in claim 7, wherein knowledge of the quantity of second information which is to be presented and knowledge of the bandwidth of the

communication channel over which the second information will be delivered to the visual display or audio interface or local store are used to calculate the time required to transmit the second information to the visual display or audio interface or local store which is subsequently used in the estimation carried out in step ii) (column 14, lines 3-67 and column 15, lines 1-26 teach the observed data sample are compared to predetermined value to determine the valued needed for synchronization).

For claim 16, Charlton et al. teaches:

A method as claimed in claim 7, wherein the estimate of total time produced in step i) includes a component for the time taken to render the first information on the visual display (column 15, lines 21-26 teach the total time estimated includes the time for data sample to be presented to the visual display).

For claim 17, Charlton et al. teaches:

A method as claimed in claim 7, wherein the estimate of the total time needed to deliver the first content is based, at least in part, upon one or more characteristics of the communications channel over which the second information is delivered, or wherein the estimate of the total time needed to deliver the second content is based, at least in part, upon one or more of the characteristics of the communications channel over which the first information is delivered (column 5, lines 36-39, column 10, lines 1-67 and column 11, lines 1-28 teach that the estimates of the first data rate is based on the second clock rate and first clock rate.).

For claim 18, Charlton et al. teaches:

A method as claimed in claim 17, wherein the latency of the communications channel is a characteristic upon which the estimate is based (column 11, lines 53-76 and column 12, lines 1-33 teach that the estimate is based on the communication buffer characteristics.).

For claim 19, Charlton et al. teaches:

A method as claimed in claim 16, wherein the bandwidth of the communications channel is a characteristic upon which the estimate is based (column 13, lines 61-65 teach that the estimates is based on a rate conversion (corresponding to frequency and bandwidth) based on hardware configurations.).

For claim 20, Charlton et al. teaches:

A system of apparatus for the delivery to a user of first information which is to be presented to the user via a visual display of a multi-modal interface and of second information which is to be presented to the user over a visual or an audio interface of the multi-modal interface, the system including processing means configured to:

estimate the total time needed to deliver the first information to the visual display or to a store local to the visual display (figure 11, element 296 First predetermined value);

estimate the total time needed to deliver the second information to the visual or audio interface or to a store local to the visual or audio interface (figure 11, element 316 second predetermined value); and

to use the estimates obtained to determine whether the presentation to the user of the first or second information to the user needs to be delayed to achieve a desired synchronism of presentation (figure 12, element 328); and

to cause any delay determined to be necessary to be applied to achieve the desired synchronism of presentation (column 9, lines 8-10 teach that the estimates are used to synchronize the data).

For claim 21, Charlton et al. teaches:

A system of apparatus for the delivery to a user of first information which is to be presented to the user via first output means of a multi-modal interface and of second information which is to be presented to the user via second output means of the multi-modal interface, the system including processing means configured to:

estimate the total time needed to deliver the first information to the first output means or to a store local to the first output means (figure 11, element 296, first predetermined value);

estimate the total time needed to deliver the second information to second output means or to a store local to the second output means (figure 11, element 316, second predetermined value); and

to use the estimates obtained to determine whether the presentation to the user of the first or second information to the user needs to be delayed to achieve a desired synchronism of presentation(figure 12, element 328); and

to cause any delay determined to be necessary to be applied to achieve the desired synchronism of presentation (column 9, lines 8-10 teach that the estimates are used to synchronize the data).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Charlton et al. as applied to claim 1 above, and further in view of 6,961,458 B2 (hereinafter Dutta et al.).

Charlton et al. teaches the limitation of claim 1 for the reasons above. It teaches the output means can be of the type that support data output for audio, video, text, music or other. (column 7, lines 24-25).

Charlton et al. does not explicitly disclose that the output means are tactile reproduction means.

Dutta et al. teaches a data output mean for visually impaired user. Column 6, lines 1-3 teach the output device that generates tactile output like Braille.

It would have been obvious to one of ordinary skill in the art, having the teaching of Charlton et al. and Dutta et al. before them at the time the invention was made to modify the system of Charlton et al. to include tactile output means as taught by Dutta et al.

One of ordinary skill in the art would have been motivated to make this modification in order to allow a visually impaired user to receive data in a communication system. Dutta et al. teaches that transmitting and receiving information in a communication system has become culture fixture and that visually impaired user rely on tools like tactile to help them be part of that culture.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yan Chen whose telephone number is (571) 270-1926. The examiner can normally be reached on Monday through Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YC

JEFFREY PWU
SUPERVISORY PATENT EXAMINER